

DIAGNOSES OF CYRTANDRA SPECIES (GESNERIACEAE) SECTION  
CROTONOCALYCES

HAWAIIAN PLANT STUDIES 156

Harold St. John  
Bishop Museum, Box 19000A, Honolulu, Hawaii 96817, USA

As recently known *Cyrtandra*, section *Crotonocalyces*, had 6 species on Kauai, 5 species and 7 varieties on Maui, 1 species on Lanai and 3 species and 5 varieties on Hawaii. To these there are here added 12 species each on Kauai, Maui, and Hawaii.

The types are in the Bishop Museum, Honolulu.

*Cyrtandra acmule* sp. nov. Folia opposita sunt, petiolis 2-4.5 cm longis pilosulis, laminis 8-12 X 4-5.2 cm ellipticis subacuminatis basi cuneata supra pilosulis infra pilosulis, cymis 3.4-4.5 cm longis 3-floriferis pilosulis, pedicellis 4-17 mm longis, calycibus 7.5-8 mm longis pilosulis 3/4 lobatis lobis 4.7-5 mm longis ovatis acutis. Typus: Maui I., W. H. Hatheway 457A.

*Cyrtandra capitata* sp. nov. Novellae sericeo-pilosae sunt, foliis oppositis inaequalibus, petiolis 10-22 mm longis sericeo-pilosulis, laminis 9.4-20.4 X 4-7.2 cm ellipticis acuminatis parte 1/6 basali anguste cuneata supra hirsutulis, cymis 4-4.5 cm longis 1-2-floriferis pilosulis, pedicellis 6-9 mm longis, calycibus 21-25 mm longis pilosulis lobis inferis 16 mm longis ovatis, corollis 33 mm longis pilosulis. Typus: Maui I., Transect 4, F. R. Warshauer 2,832.

*Cyrtandra alaustri* sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 1-4 mm longis pilosis, laminis 8-16 X 4.8-8 cm ellipticis acuminatis basi subrotundata cuneata decurrenti supra hirsutulis, infra pilosulis, cymis 2.5-3 cm longis 1-floriferis pilosis, pedicellis 2 mm longis, calycibus 17-18 mm longis pilosis tubo 7-8 mm longo lobis 9-11 mm longis lanceolatis. Typus: Kauai I., Wainiha, B. C. Stone 1,489.

*Cyrtandra conferta* sp. nov. Novellae pilosulae sunt, foliis subcoriaceis inaequalibus, petiolis 15-30 mm longis pilosulis, laminis 4.3-11 X 1.6-4.6 cm ellipticis subacuminatis basi cuneata infra nervis pilosulis, cymis 4-5 cm longis 4-5-floriferis pilosulis, pedicellis 8-14 mm longis, calycibus 11-12 mm longis pilosulis tubo 6-7 mm longo lobis lanceolatis eis inferis 7 mm longis, corollis 20-21 mm longis pilosulis loba infera 7 mm longa oblate elliptica. Typus: Hawaii I., Kiolaka'a, J. Davis 495.

*Cyrtandra cordata* sp. nov. Novellae villosae sunt, foliis oppositis, petiolis 3-9 cm longis villosis, laminis 6-11 X 5.5-9 cm subcoriaceis cordate suborbicularibus subacuminatis villosis, cymis 3-4.5 cm longis 3-7-floriferis villosis, pedicellis 5-10 mm longis, calycibus 8.5-12 mm longis villosis lobis 4.5-5 mm longis ovatis acutis, corollis 15 mm longis. Typus: Maui I., Puu Pani, C. N. Forbes 1,885.M.

*Cyrtandra crinalis* sp. nov. Novellae villosae sunt, petiolis 4-6 cm longis villosis, laminis 10-13 X 8-9.5 cm suborbicularibus acuminatis basi rotundata supra hirsutis infra pilosis nervis villosis, cymis 1.5-2.5 cm longis 5-floriferis villosis, pedicellis 1-2 mm longis, calycibus 13-15 mm longis pilosis tubo 5-6 mm longo lobis inferis 8-9 mm longis lanceolatis, corollis pilosulis. Typus: Maui I., Puu Kukui, P. K. Higashino 9,477.

*Cyrtandra glabriflora* sp. nov. Novellae pilosulae sunt, foliis oppositis inaequalibus, petiolis 1-2 cm longis pilosulis, laminis 12-17 X 4-6 cm ellipticis acuminatis basi cuneata decurrenti supra pilosis infra pilosulis, cymis 3.5-4 cm longis 1-3-floriferis pilosulis, pedicellis 11-12 mm longis, Calycibus 24-25 mm longis pilosulis tubo 11 mm longo lobis 12-13 mm longis ovate lanceolatis sed apice subulato, corollis 27 mm longis glabris. Typus: Kauai I., Hanakapiai, S. Perlman 475.

*Cyrtandra glenwoodensis* sp. nov. Novellae hirsutae sunt, foliis oppositis, petiolis 1.5-6.5 cm longis hirsutis, laminis 4-14 X 1.5-5.3 cm ellipticis acuminatis basi cuneata supra hirsutis infra hirsutulis, cymis 4-7 cm longis 3-5-floriferis hirsutulis, petiolis 1-2.5 cm longis, calycibus 12-13 mm longis hirsutis tubo 5 mm longo lobis 7-8 mm longis lanceolatis. Typus: Hawaii I., Kalanilehua, W. M. Giffard (Rock) 13,094.

*Cyrtandra henanthe* sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 2-7 cm longis pilosulis, laminis 6-17 X 4-11 cm ellipticis vel ovatis acuminatis basi cuneata et decurrenti supra hirsutis infra pilosulis, cymis 2-2.4 cm longis 1-floriferis pilosis, pedicellis 2 cm longis, calycibus 22 mm longis pilosis lobis 7 mm longis lanceolatis, corollis 22 mm longis. Typus: Kauai I., Wainiha, H. St. John & F. R. Fosberg 13,977.

*Cyrtandra hiloensis* sp. nov. Novellae hirsutae sunt, foliis oppositis, petiolis 6-8 mm longis hirsutis, laminis 12.7-18 X 7-10 cm membranaceis ellipticis acuminatis basi cuneata supra hirsutulis infra hirsutis, cymis 3-4 cm longis 3-5-floriferis hirsutis, pedicellis 7-12 mm longis, calycibus 13-14 mm longis hirsutis lobis 6-7 mm longis lanceolatis, corollis 16 mm longis pilosulis. Typus: Hawaii I., Hilo, L. H. MacDaniels 237.

*Cyrtandra humifusa* sp. nov. Novellae pilosae sunt, foliis oppositis inaequalibus, petiolis 10-32 mm longis pilosis, laminis 5-10  $\times$  2.8-5.6 cm ellipticis acutis basi cuneata supra hirsutulis infra pilosis sed nervis hirsutulis, cymis 2.5 cm longis 1-floriferis pilosis, pedicellis 7 mm longis, calycibus 13-15 mm longis pilosis  $\frac{1}{2}$  lobatis lobis ovatis subacutis eis superis 6 mm longis illis inferis 8-9 mm longis, corollis 23-24 mm longis pilosis, loba infera 7  $\times$  9 mm oblate semiorbicularis. Typus: Maui I., Ukumehame, H. St. John et al. 25,741.

*Cyrtandra imparifolia* sp. nov. Novellae villosae sunt, foliis oppositis, petiolis 10-27 mm longis villosis, laminis 10.5-20.5  $\times$  4-6.6 cm oblanceolatis acuminatis basi cuneata et decurrenti supra pilosis infra pilosis sed nervis villosis, cymis 4-6 cm longis 2-3-floriferis villosis, pedicellis 16-22 mm longis, calycibus 12 mm longis villosis  $\frac{2}{5}$  lobatis lobis 5-6 mm longis semiorbicularibus acutis, corollis 20-22 mm longis villosis loba infera 7 mm longa suborbiculari. Typus: Kauai I., Wainiha, C. & H. Christensen 263.

*Cyrtandra imparis* sp. nov. Novellae villosae sunt, foliis oppositis inaequalibus, petiolis 6-12 cm longis villosis, laminis 12-25  $\times$  8-15 cm ellipticis acuminatis basi cuneata supra villosis infra pilosis sed nervis villosis, cymis 6.5-8 cm longis 3-floriferis pilosis, pedicellis 20-23 mm longis, calycibus 7-7.5 mm longis  $\frac{2}{3}$  lobatis pilosis, lobis 4.5-5 mm longis ovato-deltoides acuminatis. Typus: Maui I., Makamakaole Stream, W. H. Hatheway 457.

*Cyrtandra ise* sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 2-5.5 cm longis pilosulis, laminis 4.5-8  $\times$  2.8-5.9 cm ovatis acutis basi subcordata supra pilosulis infra glandulose pilosulis sed nervis pilosis, cymis 3-4 cm longis 5-floriferis pilosis, pedicellis 5-12 mm longis, calycibus 8-9 mm longis glandulose pilosis lobis 5 mm longis lanceolatis, corollis pilosulis. Typus: Maui I., Olowalu, C. M. Forbes 2,393.M.

*Cyrtandra kaiholenaensis* sp. nov. Novellae hirsutulae sunt, foliis oppositis subinaequalibus, petiolis 2.5-5.5 cm longis hirsutulis, laminis 8-13  $\times$  3.5-7.3 cm ellipticis acuminatis basi cuneata supra hirsutulis infra hirsutulis, cymis 5-6.5 cm longis 3-floriferis hirsutulis, pedicellis 18-20 mm longis, calycibus 9.5 mm longis hirsutulis lobis 4-5 mm longis lanceolatis, corollis 13 mm longis hirsutulis. Typus: Hawaii I., Kaiholena, J. D. Jacobi 684.

*Cyrtandra limahuliensis* sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 1.5-3.2 cm longis pilosis, laminis 10-13.5  $\times$  6.3-7.5 cm ellipticis vel ovatis acuminatis basi cuneata supra hirsutis infra pilosulis

nervis pilosis, cymis 2.5-3.2 cm longis 1-floriferis hirsutis, pedicellis 1 mm longis, calycibus 21-24 mm longis hirsutis lobis 7-12 mm longis lanceolatis, corollis 24-28 mm longis hirsutis, Typus: Kauai I., Limahuli, S. Perlman et al. 223.

*Cyrtandra lumahaensis* sp. nov. Novellae piloulae sunt, foliis oppositis inaequalibus, petiolis 1.7-6 cm longis pilosulis, laminis 7.5-26 X 5-14 cm ellipticis acuminatis basi cuneata et decurrenti supra pilosulis infra puberulis, pedicellis 1-3 mm longis puberulis, calycibus 20 mm longis puberulis lobis 9 mm longis lanceolatis, corollis 26 mm longis puberulis. Typus: Kauai I, C. Christensen 204,

*Cyrtandra makalehaensis* sp. nov. Novellae villosae sunt, foliis oppositis inaequalibus, petiolis 22-28 mm longis villosis, laminis 14-23 X 4.5-6.5 cm subcoriaceis elliptici-lanceolatis acuminatis basi cuneata supra hirsutulis infra pilosis, cymis 2.5-4 cm longis 3-floriferis villosis, pedicellis 7-12 mm longis, calycibus 12-14 mm longis villosis lobis 5 mm longis semiorbicularibus, corollis 20 mm longis villosis. Typus: Kauai I., Makaleha, R. Hobdy 112.

*Cyrtandra monadantha* sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 15-30 mm longis pilosis, laminis 7-15 X 5.3-6.8 cm ellipticis acuminatis basi cuneata supra hirsutulis infra pilosulis sed nervis pilosis, cymis 22 mm longis 1-floriferis pilosis, pedicellis 3 mm longis, calycibus 16 mm longis pilosis  $\frac{1}{2}$  lobatis lobis 9 mm longis oblanceolatis. Typus: Kauai I., Lumahai, C. Christensen 227.

*Cyrtandra obmalaris* sp. nov. Novellae pilosae sunt, foliis oppositis, laminis 28-32 X 7.5-10.5 cm subsessilibus oblanceolatis acuminatis basi subligulata supra pilosulis infra nervis pilosulis, cymis 6-7.5 cm longis 5-9-floriferis pilosulis, pedicellis 10-20 mm longis, calycibus 15-19 mm longis pilosulis  $\frac{2}{3}$  lobatis lobis lanceolatis eis superis 6 mm longis illis inferis 10 mm longis, corollis 20 mm longis glabris. Typus: Maui I., in 1910, C. N. Forbes.

*Cyrtandra ovatiloba* sp. nov. Novellae villosae sunt, foliis oppositis, petiolis 5-8 cm longis villosis, laminis 11-11.5 X 8-10 cm ellipticis subacuminatis basi rotundata supra hirsutulis infra pilosis nervis villosis, cymis 9.5-11 cm longis 3-floriferis villosis, pedicellis 16-20 mm longis, calycibus 16-17 mm longis villosis lobis 6-7 mm longis ovatis, corollis 24 mm longis pilosulis. Typus: Maui I., Amalu, Haelaau, O. Selling & C. Skottsberg 2,730.

*Cyrtandra paris* sp. nov. Novellae hirsutae sunt, foliis oppositis, petiolis 3-4.5 cm longis hirsutis,

laminis 7.5-12.5 cm ellipticis acuminatis basi cuneata supra hirsutis infra nervis hirsutis, cymis 4-7 mm longis 3-5-floriferis hirsutis, pedicellis 17-23 mm longis, calycibus 16-19 mm longis hirsutis 5 lobis 7-9 mm longis lanceolatis. Typus: Hawaii I., Kapapala, C. N. Forbes 377, H.

*Cyrtandra petila* sp. nov. Novellae hirsutulae sunt, foliis oppositis inaequalibus, petiolis 4.5-11 cm longis hirsutulis, laminis 11-18  $\times$  7-10.5 cm ellipticis acuminatis basi cuneata supra hirsutulis infra pilosulis, cymis 6-7 cm longis 2-3-floriferis hirsutulis, pedicellis 17-27 mm longis, calycibus 17-18 mm longis pilosulis lobis 8-9 mm longis lanceolatis, corollis 19 mm longis pilosulis loba infera 4  $\times$  5.5 mm reniformi. Typus: Hawaii I., Transect 23, F. R. Warshauer 1,585.

*Cyrtandra pilosula* sp. nov. Novellae pilosulae sunt, foliis oppositis paulum inaequalibus, petiolis 1.2-3.5 cm longis pilosulis, laminis 5-9.7  $\times$  2.2-4.2 cm ellipticis suacuminatis basi cuneata supra midnervo pilosulo infra pilosulis, cymis 2-2.5 cm longis 3-floriferis pilosulis, pedicellis 8-12 mm longis, calycibus 11-12 mm longis pilosulis lobis 9 mm longis ovatis mucronatis, corollis 15 mm longis pilosulis. Typus: Hawaii I., Olaa Flume, C. N. Forbes 664, H.

*Cyrtandra pluviosa* sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 6-10 cm longis pilosis, laminis 16.5-21  $\times$  10.5-15 cm ovatis acuminatis basi rotundata supra hirsutis infra pilosis, cymis 4-5 cm longis 1-4-floriferis pilosis, pedicellis 15-20 mm longis, calycibus 13 mm longis hirsutis lobis 8 mm longis lanceolatis, corollis 19 mm longis pilosis loba infera 6  $\times$  7 mm reniformi. Typus: Hawaii I., Transect 17, F. R. Warshauer 1,572.

*Cyrtandra quiritis* sp. nov. Novellae villosae sunt, foliis oppositis, petiolis 12-25 mm longis villosis, laminis 9.5-12  $\times$  2.2-3.2 cm coriaceis lanceolatis acutis basi cuneata supra hirsutis infra villosis, cymis 8-9 cm longis 2-floriferis villosis, pedicellis 25-35 mm longis, calycibus 12-13 mm longis villosis lobis 2-3 mm longis deltoideis. Typus: Kauai I., Wahiawa Mts., C. N. Forbes 223, K.

*Cyrtandra runae* sp. nov. Novellae pilosae sunt, foliis oppositis inaequalibus, petiolis 12-31 mm longis pilosis, laminis 7-12.5  $\times$  4-7 cm ellipticis acuminatis basi cuneata et decurrenti supra hirsutis infra pilosis, cymis 3 cm longis 1-floriferis pilosis, pedicellis 3 mm longis, calycibus 19 mm longis pilosis lobis 7-9 mm longis lanceolatis. Typus: Kauai I., Anahola, R. Hobdy 188.

*Cyrtandra septemiflora* sp. nov. Novellae pilosae sunt, foliis oppositis inaequalibus, petiolis 1.4-2.7 cm longis pilosis, laminis 11-30  $\times$  3.4-9 cm oblanceolatis acuminatis basi longe cuneata et decurrenti supra hirsutis infra pilosulis, cymis 7-8 cm longis 5-7-floriferis pilosis, pedicellis 2-3.5 cm longis, calycibus 13 mm longis pilosis lobis 4 mm longis deltoideo-ovatis, corollis 20 mm longis extra glabris. Typus: Kauai I., Kamilomilo, H. St. John et al. 23,128.

*Cyrtandra spissa* sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 1-5 cm longis pilosis, laminis 8-18.5  $\times$  5-9 cm ellipticis acuminatis basi cuneata et decurrenti supra hirsutis infra pilosulis, cymis 1.5-1.8 cm longis 1-floriferis pilosis, pedunculo et pedicello 1.5-4 mm longis, calycibus 25 mm longis hirsutis lobis 11-12 mm longis lanceolatis pilosis, corollis 22 mm longis glabris. Typus: Kauai I., C. Christensen 238.

*Cyrtandra Stemmermannae* sp. nov. Novellae pilosulae sunt, foliis oppositis, petiolis 2.3-4 cm longis pilosulis, laminis 10.3-13  $\times$  4.4-6 cm subcoriaceis ellipticis acuminatis basi cuneatas supra pilosulis infra nervis pilosulis, cymis 3-7 cm longis 1-7-floriferis pilosulis, pedicellis 10-22 mm longis, calycibus 15-18 mm longis pilosulis, lobis inferis 7-8 mm longis lanceolatis, corollis 22-23 mm longis pilosulis loba infera 8  $\times$  7 mm ovata. Typus: Hawaii I., Transect 40, L. Stemmermann 3,804.

*Cyrtandra subsolana* sp. nov. Novellae subglabrae sunt, foliis oppositis inaequalibus, petiolis 1.5-4.5 cm longis in initio subhirsutulis, laminis 5.3-13.5  $\times$  2.3-6.1 cm ellipticis acuminatis basi cuneata supra midnervo hirsutulo infra nervis hirsutulis, cymis 4-4.5 cm longis 3-floriferis, pedicellis subhirsutulis, calycibus 15-20 mm longis hirsutulis lobis inferis 9-12 mm longis ovatis, corollis 24-25 mm longis hirsutis loba infera 7 mm diametro obbiculari. Typus: Maui I., Transect 6, F. R. Warshauer 2,611.

*Cyrtandra sylvestris* sp. nov. Novellae pilosae sunt, foliis oppositis inaequalibus, petiolis 1.5-6.5 cm longis pilosulis, laminis 3.5-17  $\times$  1.9-9.6 cm ellipticis acuminatis basi cuneata supra hirsutulis infra pilosulis, umbellis 6-7 cm longis, pedicellis 15-22 mm longis, calycibus 15-17 mm longis pilosulis lobis lanceolatis eis inferis 8-9 mm longis. Typus: Hawaii I., Wood Valley, F. R. Warshauer 1,781.

*Cyrtandra trina* sp. nov. Novellae pilosae sunt, foliis oppositis inaequalibus, petiolis 2.5-5 cm longis

pilosis, laminis 5.3-10.5 X 2.5-4.7 cm ellipticis acuminatis basi cuneata supra et infra hirsutis, cymis 4-5 cm longis 3-floriferis hirsutis, pedicellis 8-13 mm longis, calycibus 10-11 mm longis hirsutis lobis 5-6 mm longis lanceolatis, corollis 15 mm longis hirsutulis. Typus: Hawaii I., Transect 67, F. R. Warshauer 2,023.

*Cyrtandra ustulata* sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 2.7-4 cm longis pilosis, laminis 8-9 X 3.5-4.8 cm subcoriaceis ellipticis acuminatis basi subcordata supra et infra pilosulis, cymis 7 cm longis 5-floriferis pilosulis, pedicellis 13-17 mm longis, calycibus 19-20 mm longis pilosulis lobis inferis 9-10 mm longis ovato-deltaideis, corollis 27 mm longis pilosulis, Typus: Maui I., Transect 11, F. R. Warshauer 2,903.

*Cyrtandra waiakeaensis* sp. nov. Novellae pilosae sunt, foliis oppositis, petiolis 5-11.5 cm longis, laminis 7.5-14.5 X 4.5-9 cm ellipticis acuminatis basi cuneata supra hirsutulis infra hirsutulis, cymis 3-6 cm longis 3-floriferis hirsutulis, pedicellis 17-22 mm longis, calycibus 11 mm longis hirsutulis lobis 5 mm longis lanceolatis, corollis 14 mm longis hirsutis. Typus: Hawaii I., Kulani, H. St. John 22,341,

*Cyrtandra waiheae* (Rock) comb. nov.

C. Pickeringii A. Gray, var. waiheae Rock, Am. Journ. Bot. 5: 276-277, 1918.